

## CLAIMS

1. A polymer matrix for extending the vase life of cut flowers, which matrix comprises a charged and crosslinked polymer, wherein the matrix forms a gel in the presence of water, which gel immobilizes bacteria on the basis of electrostatic interactions between the gel and the bacteria.
- 5 2. A matrix according to claim 1, wherein the polymer is a positively charged and crosslinked polymer.
3. A matrix according to claim 1 or 2, wherein the polymer and the gel  
10 to be formed are decomposable by microorganisms.
4. A matrix according to claim 3, wherein the polymer is a biopolymer.
5. A matrix according to claim 4, wherein the biopolymer is a  
15 carbohydrate.
6. A matrix according to claim 5, wherein the carbohydrate is a carbohydrate from DP50.
- 20 7. A matrix according to any one of claims 3-6, wherein the matrix further comprises one active substance, and wherein the gel, when it is being decomposed by the microorganisms, releases the active substance to the environment.
- 25 8. A matrix according to claim 7, comprising at least two active substances.

9. A matrix according to claim 8, comprising at least one antimicrobial substance and at least one growth promoter.
10. A matrix according to any one of claims 1-9, which, in the presence  
5 of water, forms a transparent gel.
11. A matrix according to any one of claims 7-10, wherein the antimicrobial substance has the qualification "natural and/or foodgrade".
- 10 12. A matrix according to any one of claims 9-11, wherein the extent of release of the antimicrobial substance to the environment is related to the extent to which the gel formed in the presence of water is decomposed by the microorganisms present in the environment.
- 15 13. A matrix according to any one of claims 7-12, wherein the ratio between the amounts of polymer (A) and active substance (B) is 0.005-6.0 (A/B).
14. A matrix according to any one of claims 7-13, wherein the gel formed  
20 in the presence of water releases the active substance to the environment at a rate of 1-100 micromoles/day.
15. A gel obtained by contacting the polymer matrix according to any one of claims 1-14 with a limited amount of water.  
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16. A gel according to claim 15, wherein the ratio between the amounts of matrix (A) and water (B) is 0.001-3 (A/B).
17. An envelope containing a particular amount of the matrix or gel  
30 according to any one of claims 1-16.

- 18. A care product for cut flowers comprising the polymer matrix or gel according to any one of claims 1-17.**